ABSTRACT OF THE DISCLOSURE

A method and processor for obtaining torques to be applied to joints of a leg of a biped walking system are provided. The method comprises the steps of obtaining moments acting around the joints of the leg, using the vertical component of the ground reaction force acting on the leg at the point of application of the ground reaction force, the vertical components of forces acting on the joints of the leg and a term of the acceleration of gravity and without using the horizontal components of the forces acting on the joints of the leg and a term of acceleration except the term of the acceleration of gravity and obtaining the torques to be applied to the joints of the leg, based on the moments acting around the joints of the leg.

The vertical component of the ground reaction force acting on the leg, is obtained based on which leg or legs are in contact with the ground, the attitude of the leg and the vertical component of acceleration of the center of gravity of the whole body including the leg. The processor is configured to perform the above steps.